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Inventors:

Franz Ulrich Brockhoff

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Title:

ROOF STRUCTURE FOR A MULTI-PURPOSE VEHICLE

Examiner:

Pedder, Dennis H.

Confirmation No.: 8492

Verification of Translation of DE 40 38 873 A1

Assistant Commissioner for Patents Washington, DC 20231

Sir:

I, Jeffrey D. Tekanic, am employed by Kramer Barske Schmidtchen of Landsberger Strasse 300, 80687 Munich, Germany, and declare that:

- 1) I am conversant in both German and English;
- 2) I have prepared the English translation of the text and drawing of DE 40 38 873 A1 (Prosser) published in German, both of which are attached hereto (4 pages in total);
- 3) to the best of my knowledge and belief, the attached English translations are a true and accurate translation of the written description and the drawing of DE 40 38 873 A1 (Prosser); and
- 4) all statements made of my own knowledge are true and all statements made on information and belief are believed to be true, and further these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 USC 1001, and such false statements may jeopardize the validity of the application or any patent issuing thereon.

July 11,208

Date

Jeffrey D. Tekanic

Reg. No. 36,031

- 19. Federal Republic of Germany [eagle symbol]German Patent Office
- 12. Laid-open Document
- 5 10. **DE 40 38 873 A1**
 - 21. Serial Number: P 40 38 873.5
 - 22. Application Filing Date: 3 December 1990
 - 43. Laid-open Date: 4 June 1992
 - 51. Int'l. Class B 60 J 7/08
- 10 B 62 D 25/00
 - 71. Applicant: PROSSER, Dieter, Diploma of Engineering, 1000 Berlin, Germany
 - 72. Inventor: same as Applicant
- 15 54. CONVERTIBLE-TOP MADE OF STEEL SHEET HAVING REAR WINDOW MADE OF GLASS (HARDTOP) LOWERABLE
 - 57. Convertible top made of steel sheet having a rear window made of glass foldedtogether in a space-saving manner, so that it can always be carried along in the vehicle in a lowered manner without having a negative effect on the shape of the vehicle and the capacity

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Description

From the outset, the fabric top of a convertible is an anachronism in view of the otherwise-utilized steel sheet or high-quality plastic and all other known disadvantages.

Therefore, there is also removable steel- or plastic roofs that can however be carried along only in the closed state or are realized only at the expense of the trunk space or the aesthetic shape of the entire automobile due to their bulkiness.

The below-described construction avoids all theses disadvantages, it makes possible an affixed roof that can be carried along and only minimally affects the luggage space and the outer shape. It is only required that, in the so-called stepped-rear version, the roof (the roof liner), the rear window and the trunk lid are very flat and approximately equal length. Sketch 1.

This construction can be described in detail with the following main functions and parts.

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The trunk lid is not attached near the rear window as is usually the case, but rather
is attached laterally on the rear fender, and on the left or right depending upon
right-hand or left-hand driving. Thus, it opens laterally instead of rearwardly.
Sketch 2.

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2. The rear window is no longer rigidly connected with the vehicle body, but rather is movable, i.e. it has a pivot point approximately where the trunk lid normally was attached, wherein it can be rotated rearwardly from the oblique position into the horizontal. It is simultaneously connected with the roof (roof liner) using an inner, covered hinge, and takes the roof with it into the horizontal. Thus, the pivot point is disposed so that both (i.e. rear window and roof liner) abut precisely on the underside of the then-closed trunk lid as much as possible without a clearance. Sketch 3.

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3. Both lateral roof struts (most commonly, so-called C-pillars), inclusive of the rear, side windows, are lowered into the fender behind the wheel arches and analogously the front, side windows are lowered into the door frames. Depending on the spatial conditions, the rear side windows can also be lowered into the fender forward of the wheel-arches and separately from the roof side parts. These side parts could simultaneously be used as

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- 4. rollover bars, if they are controlled by a sensor to spring out relatively quickly from the lowered position in case of a to-be-anticipated rollover. (Additional rollover bars on the backrest of the seats are thus not excluded.)
- If the foldaway seats are dispensed while driving in the opened state, in the alternative, a construction is possible as is described in the following:
 - 1a The trunk lid remains attached like originally, i.e. it is still opened forwardly.
 - The rotational axis of the rear window is guided in lateral rails, which make it possible during the pivoting that the top is simultaneously guided up to the rear backrest of the front seats. The roof now lies in front of the now shorter luggage space.

3a is like 3 unmodified.

4a is like 4 unmodified.

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Patent Claim

Convertible top made of steel sheet having a rear window made of glass (hardtop) lowerable, characterized in that

- 1. a rotational axis is disposed under the rear window, which makes it possible that the entire top comes to rest under the trunk lid and the trunk lid opens laterally.
- 2. Two additional lateral rails (guides) are disposed, which make it possible that the top comes to rest over the rear- or foldaway seat area of the convertible.
- 3. In both cases, the so-called C-pillars are lowered behind the rear wheel-arches and the rear, side windows are lowered in front of these wheel-arches.

Attached hereto 1 page(s) Drawings

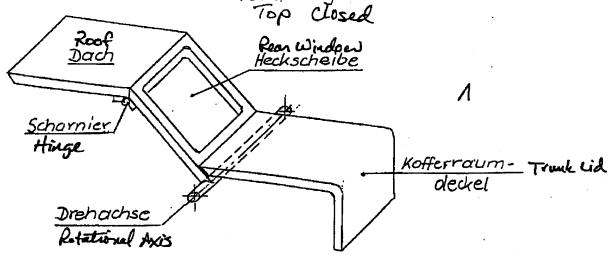
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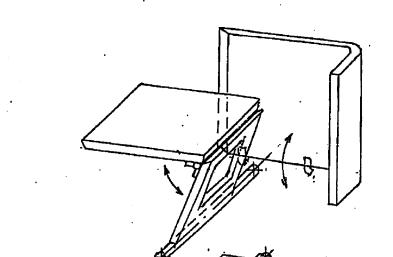
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Nummer:

Int. Ci.5: Offenlegungstag: DE 40 38 873 A1 B 60 J 7/08 4. Juni 1992

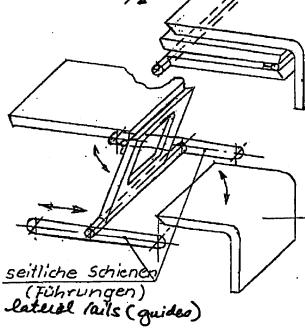
Verdeck geschlossen Top Closed





2 Zwischen- Intermediate stellung Assition

Verdeck Top opened offen



Kürzerer Kr. - Shorter trunk lid Deckel

> Alternative - Alternative 208 023/419